

Boilerplate Elements

The ISO metadata standards include many elements that are identical for many of the metadata records produced by a particular group. These boilerplate elements can be defined in templates that can be used to start metadata records being created by members of those groups. Useful boilerplate might include these elements:

File Identifier:

ISO 19115-2

```
<gmd:fileIdentifier>  
  
  <gco:CharacterString>namespac  
e:identifier</gco:CharacterSt  
ring>  
</gmd:fileIdentifier>
```

Note: ISO 19115-2 identified metadata records using a single character string that often times had to be overloaded to include the information required for unambiguous identification. ISO 19115-1 replaces the CharacterString element with an [MD_Identifier](#) object, which includes code and codeSpace fields. The combination of code and codeSpace fields ensure unambiguous file identification.

ISO 19115-1

```
<mdb:metadataIdentifier>  
  <mcc:MD_Identifier>  
    <mcc:code>  
  
    <gco:CharacterString>fileIden  
tifier</gco:CharacterString>  
    </mcc:code>  
    <mcc:codeSpace>  
  
    <gco:CharacterString>fileIden  
tifierNamespace</gco:Characte  
rString>  
    </mcc:codeSpace>  
  </mcc:MD_Identifier>  
</mdb:metadataIdentifier>
```

Metadata and Resource Language and CharacterSet:

ISO 19115-2

```
<gmd:language>  
  <gco:CharacterString>eng;  
USA</gco:CharacterString>  
</gmd:language>
```

Note: ISO 19115 specified the language with a CharacterString element. ISO 19115-1 replaces the CharacterString element with the defaultLocale/PT_Locale object. The PT_Locale object includes fields for Language, Country, and CharacterSet codes, which provide a more detailed language description. ISO 19115-1 also supports documenting additional languages with the otherLocale/PT_Locale object.

ISO 19115-1

```

<gmd:characterSet>
  <gmd:MD_CharacterSetCode

  codeList="codeListLocation#MD
  _CharacterSetCode"
  codeListValue="utf8">utf8</g
  md:MD_CharacterSetCode>
</gmd:characterSet>

```

```

<mdb:defaultLocale>
  <lan:PT_Locale>
    <lan:language>
      <lan:LanguageCode
codeList="codeListLocation#La
nguageCode"

codeListValue="eng; USA">eng;
USA</lan:LanguageCode>
    </lan:language>

<lan:characterEncoding>

<lan:MD_CharacterSetCode

codeList="codeListLocation#MD
(CharacterSetCode"

codeListValue="UTF8">UTF8</la
n:MD_CharacterSetCode>

</lan:characterEncoding>
  </lan:PT_Locale>
</mdb:defaultLocale>

```

Note: ISO 19115-1 groups the CharacterSetCode with the LanguageCode, and CountryCode in the PT_Locale object.

Hierarchy Level:

ISO 19115-2

```

<gmd:hierarchyLevel>
  <gmd:MD_ScopeCode

  codeList="codeListLocation#MD
  _ScopeCode"

  codeListValue="dataset">datas
et</gmd:MD_ScopeCode>
</gmd:hierarchyLevel>

```

ISO 19115-1

Note: ISO 19115 included any number of hierarchyLevels and hierarchyLevelNames. In cases with multiple occurrences of each, it was impossible to associate a given hierarchyLevel with the correct hierarchyLevelName. ISO 19115-1 addresses this ambiguity with the MD_MetadataScope object that unambiguously associates a MD_ScopeCode and the correct name.

```

<mdb:metadataScope>
  <mdb:MD_MetadataScope>
    <mdb:resourceScope>
      <mcc:MD_ScopeCode
codeList="codeListLocation#MD_ScopeCode"
codeListValue="dataset">dataset</mcc:MD_ScopeCode>
    </mdb:resourceScope>
    <mdb:name>

      <gco:CharacterString>LevelName</gco:CharacterString>
    </mdb:name>
  </mdb:MD_MetadataScope>
</mdb:metadataScope>

```

Metadata Date:

ISO 19115-2

```

<gmd:dateStamp>
  <gco:Date>YYYY-MM-DD</gco:Date>
</gmd:dateStamp>

```

Note: ISO 19115 includes a dateStamp for documenting the creation/revision time for the metadata. Many other times can be important in the history of metadata maintenance. ISO 19115-1 replaces the datestamp/Date field with the dateinfo/CI_Date object, which enables the type of date to be specified. ISO 19115-1 expands the date type codelist from 3 values to 16.

ISO 19115-1

```

<mdb:dateInfo>
  <cit:CI_Date>
    <cit:date>

      <gco:DateTime>2111-11-11T11:11:11</gco:DateTime>
    </cit:date>
    <cit:dateType>
      <cit:CI_DateTypeCode
codeList="codeListLocation#CI_DateTypeCode"
codeListValue="creation">creation</cit:CI_DateTypeCode>
    </cit:dateType>
  </cit:CI_Date>
</mdb:dateInfo>

```

Metadata Standard Name and Version:

ISO 19115-2

ISO 19115-1

```

<gmd:metadataStandardName>
  <gco:CharacterString>ISO
  19115-2 Geographic
  Information - Metadata Part 2
    Extensions for imagery and
    gridded
  data</gco:CharacterString>
</gmd:metadataStandardName>
<gmd:metadataStandardVersion>
  <gco:CharacterString>ISO
  19115-2:2009(E)</gco:CharacterString>
</gmd:metadataStandardVersion>

```

```

<mdb:metadataStandard>
  <cit:CI_Citation>
    <cit:title>

    <gco:CharacterString>Standard
    Title</gco:CharacterString>
    </cit:title>
    <cit:edition>

    <gco:CharacterString>Standard
    Edition</gco:CharacterString>
    </cit:edition>
  </cit:CI_Citation>
</mdb:metadataStandard>

```

Note: ISO 19115 includes CharacterStrings for specifying the metadata standard and version being used. ISO 19115-1 introduces multiple CI_Citations for the metadata standard(s) and profile(s) included in a metadata record. This provides more specific information about the source of the metadata standard and acknowledges that a single record can support multiple standards (e.g. 19115-1, 19115-2, and 19157) and profiles.

Reference System Information:

ISO 19115-2

Many global environmental datasets use a simple latitude/longitude reference system referred to as WGS 84 or EPSG:4326. This gmd:referenceSystemInfo describes that reference system as a RS_Identifier with a code and an authority of the European Petroleum Survey Group (EPSG).

```

<gmd:referenceSystemInfo>
  <gmd:MD_ReferenceSystem>

    <gmd:referenceSystemIdentifier>
      <gmd:RS_Identifier>
        <gmd:authority>
          <gmd:CI_Citation>
            <gmd:title>
              <gco:CharacterString>European
              Petroleum Survey Group (EPSG)
              Geodetic Parameter
              Registry</gco:CharacterString>
            </gmd:title>
            <gco:CharacterString>European
            Petroleum Survey Group (EPSG)
            Geodetic Parameter
            Registry</gco:CharacterString>
          </gmd:CI_Citation>
        </gmd:authority>
      </gmd:RS_Identifier>
    </gmd:referenceSystemIdentifier>
  </gmd:MD_ReferenceSystem>
</gmd:referenceSystemInfo>

```

ISO 19115-1

```

<mdb:referenceSystemInfo>
  <mrs:MD_ReferenceSystem>

    <mrs:referenceSystemIdentifier>
      <mcc:MD_Identifier>
        <mcc:authority>
          <cit:CI_Citation>
            <cit:title>
              <gco:CharacterString>European
              Petroleum Survey Group (EPSG)
              Geodetic Parameter
              Registry</gco:CharacterString>
            </cit:title>
            <cit:date>

```

```
</gmd:title>

<gmd:date>

<gmd:CI_Date>
<gco:Date>2008-11-12</gco:Dat
e>

</gmd:date>

<gmd:dateType>

<gmd:CI_DateTypeCode
codeList="codeListLocation#CI
_DateTypeCode"
codeListValue="publication">

publication</gmd:CI_DateTypeC
ode>

</gmd:dateType>

</gmd:CI_Date>

</gmd:date>

<gmd:citedResponsibleParty>

<gmd:CI_Responsibility>

<gmd:organisationName>

<gco:CharacterString>European
Petroleum Survey
Group</gco:CharacterString>

</gmd:organisationName>

<gmd:contactInfo>

<gmd:CI_Contact>

<gmd:onlineResource>

<gmd:CI_OnlineResource>

<gmd:linkage>

<cit:CI_Date>

<cit:date>

<gco:DateTime>2008-11-12T00:0
0:00</gco:DateTime>

</cit:date>

<cit:dateType>

<cit:CI_DateTypeCode
codeList="codeListLocation#CI
_DateTypeCode"
codeListValue="publication">p
ublication</cit:CI_DateTypeCo
de>

</cit:dateType>

</cit:CI_Date>

</cit:date>

<cit:citedResponsibleParty>

<cit:CI_Responsibility>

<cit:role>

<cit:CI_RoleCode
codeList="codeListLocation#CI
_RoleCode"
codeListValue="pointOfContact
">pointOfContact</cit:CI_Role
Code>

</cit:role>

<cit:party>

<cit:CI_Organisation>

<cit:name>

<gco:CharacterString>European
Petroleum Survey
Group</gco:CharacterString>

</cit:name>

<cit:contactInfo>
```

```
<gmd:URL>http://www.epsg-registry.org/</gmd:URL>

</gmd:linkage>

</gmd:CI_OnlineResource>

</gmd:onlineResource>

</gmd:CI_Contact>

</gmd:contactInfo>

<gmd:role
gco:nilReason="missing"/>

</gmd:CI_ResponsibleParty>

</gmd:citedResponsibleParty>

</gmd:CI_Citation>

</gmd:authority>
    <gmd:code>

<gco:CharacterString>urn:ogc:def:crs:EPSG:4326</gco:CharacterString>
        </gmd:code>
        <gmd:version>

<gco:CharacterString>6.18.3</gco:CharacterString>

</gmd:version>

</gmd:RS_Identifier>

</gmd:referenceSystemIdentifi

<cit:CI_Contact>

<cit:onlineResource>

<cit:CI_OnlineResource>

<cit:linkage>

<gco:CharacterString>http://www.epsg-registry.org/</gco:CharacterString>

</cit:linkage>

</cit:CI_OnlineResource>

</cit:onlineResource>

</cit:CI_Contact>

</cit:contactInfo>

</cit:CI_Organisation>

<cit:party>

</cit:CI_Responsibility>

</cit:citedResponsibleParty>

<cit:onlineResource>

<cit:CI_OnlineResource>

<cit:linkage>

<gco:CharacterString>http://www.epsg-registry.org/</gco:CharacterString>

</cit:linkage>

</cit:CI_OnlineResource>

</cit:onlineResource>

</cit:CI_Citation>

</mcc:authority>
    <mcc:code>

<gco:CharacterString>urn:ogc:
```

```
er>
  </gmd:MD_ReferenceSystem>
</gmd:referenceSystemInfo>
```

Note: ISO 19115-1 replaces the RS_Identifier with an MD_Identifier and that the online resource has moved out of the contact information and into the citation.

```
def:crs:EPSG:4326</gco:CharacterString>
</mcc:code>
<mcc:version>

<gco:CharacterString>6.18.3</gco:CharacterString>
</mcc:version>

</mcc:MD_Identifier>

</mrs:referenceSystemIdentifier>
```

```
</mrs:MD_ReferenceSystem>  
</mdb:referenceSystemInfo>
```

Resource and Metadata Constraints:

Many datasets distributed by U.S. Federal Agencies have no restrictions on their use. They do, however, include a standard disclaimer. This disclaimer is added to the boilerplate in the resourceConstraints and metadataConstraints:

```
<gmd:resourceConstraints> or <gmd:metadataConstraints>  
  <gmd:MD_Constraints>  
    <gmd:useLimitation>  
      <gco:CharacterString>Disclaimer - While every effort has been made to ensure that these data are  
        accurate and reliable within the limits of the current state of the art, NASA cannot assume  
        liability for any damages caused by any errors or omissions in the data, nor as a result of  
        the  
        failure of the data to function on a particular system. NASA makes no warranty, expressed or  
        implied, nor does the fact of distribution constitute such a warranty.</gco:CharacterString>  
    </gmd:useLimitation>  
  </gmd:MD_Constraints>  
</gmd:resourceConstraints> or </gmd:metadataConstraints>
```